

What is Claimed is:

- 1 1. A method of representing an entity as a document using a data source
2 having an associated property and content information related to the entity, the
3 method comprising:
4 identifying the data source as having the associated property;
5 retrieving the content information from the identified data source; and
6 providing the retrieved content information as at least a portion of the
7 document.
- 1 2. The method of claim 1 wherein the entity is a task.
- 1 3. The method of claim 1 wherein the entity is a person.
- 1 4. The method of claim 1 wherein the entity is an object.
- 1 5. The method of claim 1 wherein the entity is a device.
- 1 6. The method of claim 1 wherein the data source is a document.
- 1 7. The method of claim 1 wherein the data source is a device.
- 1 8. The method of claim 7 wherein the device is a phone.

1 9. The method of claim 7 wherein the device is a printer.

1 10. The method of claim 7 wherein the device is a camera.

1 11. A method of representing an entity as a document using a plurality of data
2 sources, a first one of the data sources having a first associated property and first
3 content information related to the entity, a second one of the data sources having
4 a second associated property and second content information related to the entity,
5 the method comprising:

6 identifying the first data source as having the first associated property;

7 identifying the second data source as having the second associated property;

8 retrieving the first content information from the first data source and the
9 second content information from the second data source; and

10 combining the retrieved first and second content information to define at
11 least a portion of the document.

1 12. A document management system for representing an entity as a document
2 using a data source having an associated property and content information related
3 to the entity, the system comprising:

4 a bit provider configured to:

5 i) identify the data source as having the associated property;

6 ii) retrieve the content information from the identified data
7 source; and

8 iii) provide the retrieved content information as at least a portion
9 of the document.

1 13. A system for representing an entity as a document using a plurality of data
2 sources, a first one of the data sources having a first associated property and first
3 content information related to the entity, a second one of the data sources having
4 a second associated property and second content information related to the entity,
5 the system comprising:

6 a bit provider configured to:

7 i) identify the first data source as having the first associated
8 property;

9 ii) identify the second data source as having the second
10 associated property;

11 iii) retrieve the first content information from the first data
12 source and the second content information from the second data source; and

13 iv) combine the retrieved first and second content information
14 to define at least a portion of the document.

1 14. The document management system of claim 13 further comprising:

2 an application interface in communication with the bit provider, the
3 application interface configured to provide the document to an application.

1 15. A system for representing an entity as a document, the system comprising:

2 a data storage layer including a plurality of data sources, a first one of the
3 data sources having a first associated property and first content information related
4 to the entity, a second one of the data sources having a second associated property
5 and second content information related to the entity;

- 6 an application layer including a plurality of applications;
- 7 a document management layer interposed between the data storage layer and
- 8 the application layer, the document management layer including:
- 9 a) a bit provider in communication with the data storage layer
- 10 and configured to:
- 11 i) identify the first data source as having the first
- 12 associated property;
- 13 ii) identify the second data source as having the second
- 14 associated property;
- 15 iii) retrieve the first content information from the first
- 16 data source and the second content information from the second data source;
- 17 iv) combine the retrieved first and second content
- 18 information to define at least a portion of the document; and
- 19 b) an application interface layer configured to receive the
- 20 document from the bit provider and provide the document to an application.

1 16. The system of claim 15 wherein the application interface layer includes a

2 plurality of interfaces each associated with a respective one of the plurality of

3 applications and configured to provide the document to a respective associated

4 application.

1 17. A method of representing a physical device as a document, the physical

2 device having an associated property and content information stored in a memory

3 unit situated within the physical device, the method comprising:

4 identifying the physical device as having the associated property;

5 retrieving the content information from the identified physical device; and
6 providing the retrieved content information as at least a portion of the
7 document.

1 18. The method of claim 17 wherein the physical device is a telephone, and the
2 content information includes a phone number.

1 19. The method of claim 17 wherein the physical device is a telephone, and the
2 content information includes an address.

1 20. The method of claim 17 wherein the physical device is a printer, and the
2 content information includes a list of outstanding print jobs.

1 21. The method of claim 17 wherein the physical device is a camera, and the
2 content information includes image data.

1 22. The method of claim 17 wherein the physical device is a UNIX machine, and
2 the content information includes status information for the UNIX machine.

1 23. A system for representing a physical device as a document, the physical
2 device having an associated property and content information stored in a memory
3 unit situated within the physical device, the system comprising:

4 a bit provider configured to:

5 i) identify the physical device as having the associated property;

- 6 ii) retrieve the content information from the identified physical
7 device; and
- 8 iii) provide the retrieved content information as at least a portion
9 of the document.

1 24. The system of claim 23 further comprising:
2 an application interface in communication with the bit provider, the
3 application interface configured to provide the document to an application.

1 25. The system of claim 24, the bit provider further configured to:
2 iv) receive additional content information from the application
3 via the application interface; and
4 ii) send the additional content information to the identified
5 physical device via a communications path.

1 26. The system of claim 25 wherein the communications path includes a short
2 message service ("SMS") gateway.

1 27. The system of claim 25 wherein the communications path includes an e-mail
2 gateway.

1 28. The system of claim 25 wherein the communications path is established, at
2 least in part, over a local area network ("LAN").

1 29. A method of representing a person as a document using a plurality of data
2 sources, a first one of the data sources having a first associated property and first
3 content information related to the person, a second one of the data sources having
4 a second associated property and second content information related to the person,
5 the method comprising:

6 identifying the first data source as having the first associated property;
7 identifying the second data source as having the second associated property;
8 retrieving the first content information from the first data source and the
9 second content information from the second data source; and
10 combining the retrieved first and second content information to define at
11 least a portion of the document.

1 30. The method of claim 29 wherein the first data source is an image file and the
2 first content information includes image data.

1 31. The method of claim 29 wherein the first content information includes an e-
2 mail address.

1 32. The method of claim 29 wherein the first content information includes a
2 telephone number.

1 33. The method of claim 29 wherein the first content information includes a list
2 files.

1 34. A system for representing a person as a document using a data source
2 having an associated property and content information related to the person, the
3 system comprising:

4 a bit provider configured to:

- 5 i) identify the data source as having the associated property;
6 ii) retrieve the content information from the identified data
7 source; and
8 iii) provide the retrieved content information as at least a portion
9 of the document.

1 35. The system of claim 34 further comprising:

2 an application interface in communication with the bit provider, the
3 application interface configured to provide the document to an application.

1 36. The system of claim 35, the bit provider further configured to:

- 2 iv) receive additional information from the application via the
3 application interface; and
4 ii) send the additional information to the person via a
5 communications path.

1 37. The system of claim 36 wherein the communications path includes a short
2 message service ("SMS") gateway.

1 38. The system of claim 36 wherein the communications path includes an e-mail
2 gateway.

1 39. The system of claim 36 wherein the communications path is established, at
2 least in part, over a local area network ("LAN").

1 40. A method of representing a computational process as a document, the
2 computational process being performed on a computer having a memory unit in
3 which content information related to the computational process is maintained, the
4 method comprising:

5 retrieving the content information from the memory unit of the computer;
6 and

7 providing the retrieved content information as at least a portion of the
8 document.

1 41. The method of claim 40 wherein the computational process includes
2 operation of a Java Remote Method Invocation ("RMI") registry, and the content
3 information includes an object named in the RMI registry.

1 42. The method of claim 40 wherein the computational process includes
2 monitoring of a kernel.

1 43. A system for representing a travel approval process as a document using a
2 data source having an associated property and content information related to the
3 travel approval process, the system comprising:

4 a bit provider configured to:

- 5 i) identify the data source as having the associated property;
6 ii) retrieve the content information from the identified data
7 source; and
8 iii) provide the retrieved content information as at least a portion
9 of the document.

1 44. The system of claim 43 further comprising:

2 an application interface in communication with the bit provider, the
3 application interface configured to provide the document to an application.

1 45. The system of claim 44, the bit provider further configured to:

- 2 iv) receive additional information from the application via the
3 application interface; and
4 ii) store the additional information.

1 46. A system for representing a hiring process as a document using a data
2 source having an associated property and content information related to the travel
3 approval process, the system comprising:

4 a bit provider configured to:

- 5 i) identify the data source as having the associated property;
6 ii) retrieve the content information from the identified data
7 source; and

8 iii) provide the retrieved content information as at least a portion
9 of the document.

1 47. The system of claim 46 further comprising:
2 an application interface in communication with the bit provider, the
3 application interface configured to provide the document to an application.

1 48. The system of claim 47, the bit provider further configured to:
2 iv) receive additional information from the application via the
3 application interface; and
4 ii) store the additional information.

1 49. The system of claim 48 wherein the communications path includes a short
2 message service ("SMS") gateway.

1 50. The system of claim 48 wherein the communications path includes an e-mail
2 gateway.

1 51. The system of claim 48 wherein the communications path is established, at
2 least in part, over a local area network ("LAN").